

The Drinking Water Program: An Overview

The EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water. The Agency also regulates how often public water systems (PWSs) monitor their water for contaminants and report the monitoring results to the states or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify their consumers when they have violated these regulations. The 1996 Amendments to the SDWA require consumer notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the PWS is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

The SDWA applies to the 50 states, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

The SDWA allows states and territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. For a state to receive primacy, EPA must determine that the state meets certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. Of the 56 states and territories, all but Wyoming and the District of Columbia have primacy. The EPA Regional Offices administer the PWSS Programs within these two jurisdictions.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. EPA currently administers PWSS Programs on all Indian lands except the Navaho Nation, which was granted primacy in late 1999.

Mississippi assumed primacy for the PWSS Program in 1974 with the Mississippi State Department of Health (MSDH) as the primacy agency. The MSDH Division of Water Supply (DWS) assures that safe drinking water is provided to the 2.5 million Mississippians (96 percent of the population) who rely on the state's 1,463 public water supplies. The MSDH/DWS accomplishes this by regulating the engineering design, construction, operation, and maintenance of these water supplies; by enforcing the water quality standards of the Federal and Mississippi Safe Drinking Water Acts; and by ensuring that each community public water supply is maintained by a waterworks operator licensed by MSDH. During 2001, MSDH completed 1,438 sanitary surveys on public water systems, reviewed 712 plans for public water systems, and approved the final design of 259 public water supply projects.

Annual State PWS Report

Each quarter, primacy states submit data to the Safe Drinking Water Information System (SDWIS/FED), an automated database maintained by EPA. The data submitted include, but are not limited to, PWS inventory information, the incidence of Maximum Contaminant Level, monitoring, and treatment technique violations; and information on enforcement activity related to these violations. Section 1414(c)(3) of the Safe Drinking Water Act requires states to provide EPA with an annual report of violations of the primary drinking water standards. This report provides the numbers of violations in each of five categories: MCLs, treatment techniques, variances and exemptions, significant monitoring violations, and significant consumer notification violations. The EPA Regional Offices report the information for Wyoming, the District of Columbia, and all Indian Lands but the Navaho Nation. EPA Regional offices also report Federal enforcement actions taken. Data retrieved from SDWIS/FED form the basis of this report.

Public Water System

A Public Water System (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of PWSs. PWSs can be community (such as towns), nontransient noncommunity (such as schools or factories), or transient noncommunity systems (such as rest stops or parks). Mississippi currently has 1,199 community water systems, 102 nontransient noncommunity water systems, and 162 transient noncommunity water systems on the active inventory. For this report when the acronym “PWS” is used, it means systems of all types unless specified in greater detail.

Maximum Contaminant Level

Under the Safe Drinking Water Act (SDWA), the EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). During 2001, 68 PWSs incurred 74 MCL violations under the Total Coliform Rule (TCR). No systems incurred acute violations for e. coli or nitrate/nitrite.

During 2001, 2 PWSs incurred a total of 4 violations for exceeding the Total Trihalomethane MCL.

Treatment Techniques

For some regulations, the EPA establishes treatment techniques (TTs) in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, some bacteria, and turbidity. There were no treatment technique violations for Mississippi PWSs in 2001.

Variances and Exemptions

A primacy state can grant a PWS a variance from a primary drinking water regulation if the characteristics of the raw water sources reasonably available to the PWS do not allow the system to meet the MCL. To obtain a variance, the system must agree to install the best available technology, treatment techniques, or other means of limiting drinking water contamination that the Administrator finds are available (taking costs into account), and the state must find that the variance will not result in an unreasonable risk to public health. The variance shall be reviewed not less than every 5 years to determine if the system remains eligible for the variance.

A primacy state can grant an exemption temporarily relieving a PWS of its obligation to comply with an MCL, treatment technique, or both if the system's noncompliance results from compelling factors (which may include economic factors) and the system was in operation on the effective date of the MCL or treatment technique requirement. The state will require the PWS to comply with the MCL or treatment technique as expeditiously as practicable, but not later than 3 years after the otherwise applicable compliance date.

Currently, the Division of Water Supply does not grant variances or exemptions.

Monitoring

A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agent, a monitoring violation occurs. In Mississippi, the vast majority of public water supplies submit all samples to the MSDH for analysis at the state laboratory. The water supply collects most of the required samples in containers provided by MSDH. Once analyzed, the results are sent to the public water supply. In 2001, the DWS processed 61,054 water samples submitted for microbiological analysis. Of those, 1,286 were positive for total coliform. 20 were positive for e. coli. A total of 604 water samples were rejected for being improperly submitted. In addition to the water samples tested for microbiological contaminants: 7,318 samples were analyzed for Lead and Copper; 2,144 for Nitrate/Nitrite; 2,041 for Inorganics; 797 for Physical/Chemical properties; 1,751 for Volatile Organic Contaminants (VOCs); 370 for Total Trihalomethanes (TTHMs); 406 for Haloacetic Acids; 26 for Bromates; and 151 for Radiologicals. Water samples from 12 public water systems were analyzed for Synthetic Organic Contaminants (SOCs). Most of the water systems in Mississippi have been granted a waiver from monitoring for the SOCs based on previous studies, vulnerability assessments, and chemical use data.

Monitoring Violations (Major/Minor)

For this report, significant monitoring violations are generally defined as any major monitoring violation that occurred during the calendar year of the report. A major monitoring violation occurs when no required routine or resamples were taken or no results were reported during a compliance period. A minor monitoring violation occurs when some but not all of the required number of samples or resamples are taken. In Mississippi during 2001, 22 PWSs incurred a total of 26 major monitoring violations for failure to collect the required routine monthly samples.

22 PWSs incurred 23 minor monitoring violations for collection of some but not all of their routine monthly samples. 2 PWSs incurred 2 major monitoring violations for failing to collect repeat samples following a positive sample. 2 PWSs incurred 2 minor monitoring violations for collecting some but not all of the repeat samples required following a positive sample.

Consumer Notification and the Consumer Confidence Report (CCR)

Every Community Water System is required to deliver to its customers a brief annual water quality report. This report includes educational material and provides information on the source water, the levels of any detected contaminants, and compliance with drinking water regulations. The Division of Water Supply compiles sample data for the calendar year and sends this information to all community water supplies in the state so that they may accurately report their data to the customers.

Significant Consumer Notification (CCR) Violations

For this report, a significant public notification violation occurred if a community water system completely failed to provide its customers the required 2000 annual water quality report. July 1, 2001, was the deadline for all systems on inventory to prepare a report, deliver the report to the customers, and certify to the primacy agency (MSDH) that the report was accurately prepared and delivered. 96 water systems failed to prepare and accurately distribute the 2000 Consumer Confidence Report and were issued violations. 40 systems were issued violations for inadequate reporting (i.e., improper format, incomplete information, failure to remit a copy of the report to the primacy agency or failure to certify the manner in which it was made available to their customers).

Boil Water Notices

Boil water notices are issued for many reasons. The primary cause for a boil water notice is loss of water system pressure. Any time a water system experiences a pressure loss, contaminants can be siphoned back into the water distribution system. In 2001, there were 372 boil water notices issued. 241 of these were issued by the water systems or were "self imposed". 98 were self imposed with state assistance on public notification. 33 of the boil water notices issued in 2001 were due to excessive microbiological contamination ("positive" water samples) or inclement weather. During seasonal inclement weather, it is not uncommon for the health department to issue "blanket" boil waters for large sections of the state (i.e. ice storms, flooding). These are issued to ensure the protection of the public.

State Enforcement Actions

During 2001, the DWS issued 74 Notices of Violation (NOVs) for Total Coliform Rule Violations. And 53 NOVs for monitoring violations associated with the total coliform rule. State personnel made 15 compliance visits to water systems that incurred two or more violations of the SDWA. Persistent violator warnings were issued to 4 systems with 3 SDWA violations. No state administrative orders were required to be issued.

Public Water Systems with MCL Violations in 2001

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Most of the MCL violations in 2001 were violations of the Total Coliform Rule. Those water systems that exceeded the MCL for coliform are listed along with the month that the water system incurred the violation.

Adams County

0010002	City of Natchez	Total Coliform	04/01
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Amite County

0030024	Northeast Amite W/A	Total Coliform	09/01
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Attala County

0040008	Possumneck-Carmack W/A	Total Coliform	08/01
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Bolivar County

0060006	City of Cleveland	Total Coliform	08/01
0060007	Delta State University	Total Coliform	07/01
0060011	Lamont Water Corporation	Total Coliform	12/01
0060013	City of Mound Bayou	Total Coliform	01/01 03/01
0060047	Boyle-Skene WA	Total Coliform	07/01

Calhoun County

0070020	Mt. Comfort WA - Banner	Total Coliform	12/01
0070024	Poplar Springs WA #2	Total Coliform	08/01

Clark County

0120016	Harmony WA #4	Total Coliform	02/01
0120017	Harmony WA #5	Total Coliform	09/01
0120027	Wautubbee WA	Total Coliform	05/01

Desoto County

0170006	Eudora WA	Total Coliform	03/01
0170028	North MS Utilities - Chick Bluff	Total Coliform	04/01
0170029	North MS Utilities - Lake O' Hill	Total Coliform	03/01

Grenada County

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0220003	City of Grenada	Total Coliform	02/01 07/01
0220005	Grenada Co. WS - Girl Scout	Total Coliform	08/01

Harrison County

0240079	Sherwood Village MHP	Total Coliform	06/01
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Holmes County

0260011	Lebanon WA - West	Total Coliform	05/01
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Jones County

0340007	J P Utility District	Total Coliform	09/01
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Lafayette County

0360033	ABE Tula WS	Total Coliform	07/01
0360034	Oakview Manor Apts.	Total Coliform	08/01

Lamar County

0370010	Town of Sumrall	Total Coliform	03/01
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Lauderdale County

0380006	North Lauderdale W/A	Total Coliform	09/01
0380009	Toomsaba WS	Total Coliform	03/01

Lee County

0410007	Mooreville-Richmond #1	Total Coliform	04/01
0410015	City of Tupelo	Total Coliform	09/01
0410016	Town of Verona	Total Coliform	04/01
0410018	Palmetto WA - South	Total Coliform	10/01
0410039	Mooreville-Richmond #3	Total Coliform	04/01

Leflore County

0420001	City of Greenwood	Total Coliform	08/01
0420006	Town of Sidon	Total Coliform	02/01
0420008	Chapman S/D North - Delta Drilling	Total Coliform	09/01

Lowndes County

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0440004	Town of Crawford	Total Coliform	08/01
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Madison County

0450014	Tougaloo College	Total Coliform	12/01
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Marion County

0460004	Community WA	Total Coliform	06/01
0460005	Foxworth Water & Sewerage	Total Coliform	12/01

Marshall County

0470103	Country View Farms	Total Coliform	07/01
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Monroe County

0480007	Hamilton Water District	Total Coliform	11/01
0480013	Wren WA #1 - South	Total Coliform	11/01

Oktibbeha County

0530042	Southside WA	Total Coliform	07/01
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Panola County

0540063	Sardis Lake Community WA	Total Coliform	06/01
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Pear River County

0550045	Center WA - Progress System	Total Coliform	09/01
0550059	Metz Trailer Park**	Total Coliform	11/01

***Inactivated 04/26/02*

Prentiss County

0590008	Ingram WA	Total Coliform	09/01
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Rankin County

0610007	Evergreen WA	Total Coliform	06/01
0610011	Greenfield WA	Total Coliform	09/01
0610013	Leesburg WA	Total Coliform	08/01

Scott County

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0620007	L & F WA	Total Coliform	06/01
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Simpson County

0640007	City of Mendenhall	Total Coliform	09/01
0640008	New Hope Water Assoc.	Total Coliform	09/01
0640021	Shivers WA	Total Coliform	07/01
			09/01

Sunflower County

0670006	City of Indianola	Total Coliform	03/01
			10/01
0670039	Allen Canning Plant	Total Coliform	06/01
			07/01

Tate County

0690002	Town of Coldwater	Total Coliform	08/01
0690005	City of Senatobia	Total Coliform	09/01

Tippah County

0700003	Chalybeate WA #1	Total Coliform	11/01
0700005	Town of Faulkner	Total Coliform	08/01
0700010	Tiplersville WA	Total Coliform	02/01
0700011	Town of Walnut	Total Coliform	09/01

Tunica County

0720006	Dundee WA - East**	Total Coliform	08/01
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*** Inactivated 01/24/02*

Warren County

0750005	Hilldale Water District	Total Coliform	02/01
			05/01

Washington County

0760001	Town of Arcola	Total Coliform	07/01
0760010	Winterville WA	Total Coliform	07/01
0760017	Delta Village	Total Coliform	08/01
0760074	Lake Jackson WA	Total Coliform	07/01

Wilkinson County

0790007 Town of Woodville Total Coliform 06/01

The following water systems exceeded the maximum contaminant level of 100 ppbs for total trihalomethanes (TTHMs) in 2001. Both were large systems over 10,000 population. One system was a surface water system. As a result, both systems have altered their disinfection practices to alleviate the trihalomethane formation potential

<u>ID</u>	<u>NAME</u>	<u>SAMPLING PERIOD</u>	<u>RESULT**</u>
0250008	City of Jackson	January - March 2001	132 ppb
0250008	City of Jackson	April - June 2001	108 ppb
0760004	City of Greenville	June - September 2001	148 ppb
0760004	City of Greenville	October - December 2001	140 ppb

** Results are calculated using an annual running average of the past four quarters' results.

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Listed below are those water systems that incurred monitoring violations for 2001 along with the month(s) that samples were not collected.

Bolivar County

0060011	Lamont Water Corp.	Missing routine sample(s)	02/01
0060044	Bolivar County WA	Missing routine sample(s)	09/01

Clark County

0120004	Town of Enterprise	No routine sample(s)	10/01
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Coahoma County

0140046	Davenport Water Assn.	Missing routine sample(s)	07/01
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Desoto County

0170007	City of Olive Branch - Fairhaven	No routine sample(s)	08/01
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Forrest County

0180020	Hancock Mobile Home Park	No routine sample(s)	07/01
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Franklin County

0190010	Franklin County WA - Berrytown	No routine sample(s)	05/01
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Grenada County

0220007	Grenada Co. WS - Mondy/Elliot	Missing routine sample(s)	11/01
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Harrison County

0240172	C & R Properties	Missing routine sample(s)	09/01
0240203	Apple Valley Trailer Park	Missing routine sample(s)	09/01
0240232	DuPont Inc. - Delisle Plant	Missing routine sample(s)	10/01

Hinds County

0250012	City of Jackson - Maddox Rd.	Missing routine sample(s)	01/01
0250025	Town of Terry	Missing routine sample(s)	11/01

Jefferson County

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0320001	Town of Fayette	Missing routine sample(s)	04/01
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Jeff Davis County

0330001	Town of Bassfield	Missing routine sample(s)	10/01
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Lafayette County

0360034	Oakview Manor Apts.	Missing resample(s)	08/01
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Lamar County

0370018	Bill's Trailer Park	Missing routine sample(s)	02/01 03/01
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Leake County

0400005	Lena W/A	No routine sample(s)	01/01 11/01
0400008	Southwest Leake WA	No routine sample(s)	03/01

Marion County

0460006	Goss WA	Missing resample(s)	10/01
0460010	MS Dept. of Youth Services	No routine sample(s)	12/01

Marshall County

0470088	Mt. Pleasant Headstart	Missing routine sample(s)	10/01
0470103	Country View Farms	No routine sample(s)	01/01 11/01

Oktibbeha County

0530022	Talking Warrior WA #1	Missing routine sample(s)	10/01
0530027	Adaton W/A #2**	No routine sample(s)	07/01
0530028	Adaton W/A #3**	No routine sample(s)	07/01
<i>** Inactivated 06/12/2002</i>			
0530041	Morrill Rd. WA	Missing routine sample(s)	08/01

Pearl River County

0550012	Dixie Utilities	No routine sample(s)	03/01
0550050	Liberty Road Trailer Park	No routine sample(s)	02/01
0550054	Timberlane-Virginia Manor	No routine sample(s)	03/01

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0550059	Metz Trailer Park**	No routine sample(s)	08/01
<i>**Inactivated 04/26/02</i>			

Perry County

0560008	Janice WA #2 - South	No routine sample(s)	08/01
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Pike County

0570010	Town of Osyka	Missing routine sample(s)	05/01
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Rankin County

0610007	Evergreen WA	Missing routine sample(s)	10/01
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Smith County

0650008	City of Raleigh	No routine sample(s)	02/01
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Sunflower County

0670004	Town of Drew	Missing routine sample(s)	02/01
0670035	FMH WA #2 - Blaine	Missing routine sample(s)	06/01
0670039	Allen Canning Plant	Missing routine sample(s)	03/01

Tallahatchie County

0680005	Village of Glendora	No routine sample(s)	07/01
0680009	Spring Hill W/A	No routine sample(s)	09/01
0680010	Town of Tutwiler	Missing routine sample(s)	12/01

Tate County

0690002	Town of Coldwater	No routine sample(s)	07/01
		No resample(s)	08/01

Washington County

0760001	Town of Arcola	No resample(s)	06/01
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Yazoo County

0820002	Town of Bentonia	Missing routine sample(s)	07/01
0820008	Hilton Heights WA #1	No routine sample(s)	02/01

0820012	Town of Satartia	No routine sample(s)	01/01
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02/01

12/01

0820032 Hilton Heights WA #2

No routine sample(s)

02/01